

# ARGONAUT®-MD

Acoustic Doppler Current Meter

## FEATURES

- Full ocean depth rating
- High sensitivity for low-scatter environments
- Small & lightweight design clamps directly to mooring line
- Optimized 45 degree beam geometry
- Extremely low power consumption
- Optional pressure and conductivity sensors

## As SIMPLE as it GETS

Combining unparalleled sensitivity and the reliability you expect, the Argonaut-MD (Mooring Deployment) acoustic Doppler current meter has become the instrument of choice in the oceanographic community. The MD's simple, yet elegant design, and its capacity for long-term deployments provide you with accurate, dependable ocean current data.



*Typical deep-ocean deployment clamped directly to a mooring line.*



*600 m Delrin version with 20 mm transducers*

*6000 m titanium version with 40 mm transducers*



*ViewArgonaut Windows software for data display and analysis.*

# SPECIFICATIONS

## Argonaut-MD

### Standard Features

- Optimized 45 degree slant, 120 degree orthogonal beam geometry for 3D current measurements with no directional bias
- 1.5 MHz Acoustic frequency
- 600 m rated Delrin housing with 40 mm transducers
- Reflected echo intensity output
- RS 232 communication protocol
- ViewArgonaut Windows software for real time data collection, data retrieval, diagnostics, and processing
- Flexible sampling strategies for reduced duty cycle operation and extended deployments of over 1 year
- Internal memory (stores over 95,000 samples)
- Temperature sensor mounted on exposed titanium pin for fast response
- Compass/tilt sensor
- Internal alkaline battery pack

### Optional Features

- 6,000 m rated Titanium housing with 40 mm diameter ceramics for enhanced sensitivity
- 20 mm transducers (Delrin version only)
- Integrated external CT sensor
- Integrated internal inductive modem
- Mounting clamps
- Internal piezoresistive pressure sensor
- In-line load cage
- RS 422 communications protocol

### Velocity

- Range:  $\pm 6$  m/s
- Resolution: 0.1 cm/s
- Accuracy:  $\pm 1\%$  of measured velocity,  $\pm 0.5$  cm/s
- User programmable data output rate from 10 seconds to 12 hours

### Temperature Sensor

- Resolution: 0.01°C
- Accuracy:  $\pm 0.1^\circ\text{C}$

### Compass/Tilt Sensor

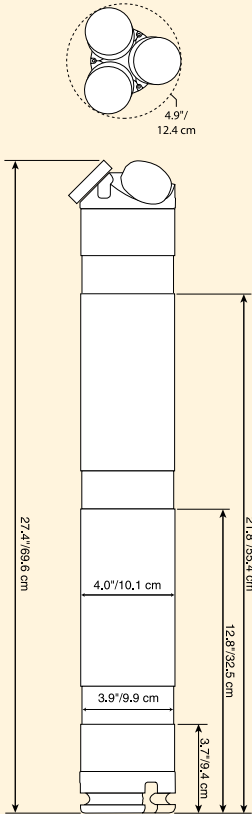
- Resolution: Heading, Pitch, Roll 0.1°
- Accuracy: Heading  $\pm 2^\circ$
- Accuracy: Pitch, Roll  $\pm 1^\circ$
- Built-in calibration procedure to compensate for ambient magnetic fields

### Physical & Environmental

- Operating temperature:  $-5^\circ$  to  $40^\circ\text{C}$
- Storage temperature:  $-10^\circ$  to  $50^\circ\text{C}$
- Weight in air: 5.6 kg / 12.5 lb (Delrin housing), 11.8 kg / 26 lbs (Titanium housing)
- Weight in water: 1.4 kg / 3.0 lb (Delrin housing); 7.7 kg / 17 lbs (Titanium housing)

### Power

- Input power: 6-16 VDC
- Typical power consumption: 0.2 - 0.3 W (continuous operation); 0.001 (stand-by)
- Battery capacity (alkaline): 368 W-hr



Dimensions for 6000 m rated titanium version shown.

600 m Delrin plastic system is slightly different.



Our remote measurement volume is free of any wake interference, thus eliminating the need for the cumbersome and inefficient mooring hardware required by other sensors.



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Multiple Argonaut-MD systems with integrated CT sensors and load cages

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